



NOTES ON THE GENUS *PSYCHOPSIS*, NEWMAN,
WITH DESCRIPTIONS OF NEW SPECIES.

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(Plate xxi.)

Since my former contribution* to the study of these beautiful Neuroptera, I have obtained a fine series of specimens of all the described species, through the kindness of my Correspondents in various parts of Australia: and among them some from the vicinity of Adelaide, S.A., where Newman's type was obtained over sixty years ago.

From a comparison of the specimens now available, it is quite evident to me that two species which can be well defined and are constant in their markings, have been both placed in our Museum collections under the name of *Psychopsis mimica*. In his description of the type, Newman does not mention the rich red colour in the blotches on the forewings, so typical in the second form; nor are they shown in the woodcut given on the title-page of the second volume of the 'Entomologist.'

The brief description given in my former paper under the name of *P. mimica*, therefore, applies to the one to which I now propose to give specific rank, under the name of *Psychopsis newmani*. Both the species in question seem to have much the same range, but, being rare insects, they are not common in collections. Mr. Lea informs me that he has never seen them in any Tasmanian collection. One (probably Newman's) is found in Western Australia.

The note on *P. calivagus* in my former paper, applies to *P. insolens*, for the former, though the smallest of the genus, is one of the most beautiful.

* These Proceedings, 1902, p. 367.

PSYCHOPSIS NEWMANI, sp.n.

(Plate xxi., figs. 1-2.)

Psychopsis mimica, Newm., Froggatt, Proc. Linn. Soc. N.S. Wales, 1902, p. 367.

Length across outspread wings $1\frac{3}{4}$ inches, not $2\frac{1}{2}$ as given in former description.

General colour distinctly buff instead of a delicate creamy-white tint, red colouration of the blotches on forewings well defined; the transverse black pencil-like lines on the front margin of forewings consisting of only two pair, both of which run out from the blotches.

Hab.—Sydney (W. W. Froggatt), and Blue Mts., N.S.W. (J. Kershaw; Brisbane, Q. (R. Illidge).

PSYCHOPSIS MIMICA, Newman.

(Plate xxi., figs. 3-5.)

Length across outspread wings about the same as in the preceding; but both are variable in size, some being much smaller than the measurements given would indicate.

General colour creamy-white, the red spots or blotches at the base of forewings of the preceding species replaced by two small brown marks; the larger blotches towards tip of hind margins in *P. newmani* replaced by a slender curved line enclosing the black spots on the edge. Transverse bars consisting of pairs of slender pencil-like lines, four in number, running out to front margin. Central spot on hind wings generally smaller and darker.

Hab.—Adelaide, S.A. (J. G. O. Tepper); Inglewood, Vic. (G. Lyell); Young, N.S.W. (W. W. Froggatt).

PSYCHOPSIS INSOLENS, McLachlan.

(Plate xxi., fig. 6.)

This appears to be the commonest species. There is a fine series in the Brisbane Museum, taken about Moreton Bay. McLachlan says that there are a number in the British Museum;

and there are others in the Macleay Museum, which Mr. Masters informs me were taken about Sydney some twenty years ago, when it was comparatively common. It is somewhat smaller than the former species, and of a uniform dull brownish tint, with faint tracings of spots and marks on the fore and hind-wings; and might be compared to a dull-coloured rubbed specimen of *P. mimica*. The species I placed under *P. cœlivagus*, Walk., in my former paper is this species.

Hab.—Brisbane, Q., and Sydney, N.S.W.

PSYCHOPSIS CÆLIVAGUS, Walker.

(Plate xxi., fig. 8.)

Length across outspread wings 1 inch; body 4 lines.

Dorsal surface of head, thorax and abdomen black; under-surface of head and thorax marked with reddish-brown, all clothed with fine white hairs. Antennæ composed of 16 short, rounded joints, ochreous at base, darker and more fusiform to tip. Legs light brown. Forewings semi-transparent, with opaline tints, and clothed with fine grey hairs; a broad dark reddish-brown band, composed of one small and five large dark brown blotches surrounded with lighter brown (giving off rich coppery reflections) occupying the front portion of the wings, curving round at the apex. Outer edges and hind margin mottled with light brown; hindwings white, with basal portions lightly marked with brown, and a very fine black spot in the centre.

Hab.—Brisbane, Q. (R. Illidge; one specimen).

Walker described his type in 1853. I have never seen a specimen in any Australian collection.

PSYCHOPSIS ILLIDGEI, n.sp.

(Plate xxi., figs. 7 and 9.)

Length across outspread wings $2\frac{1}{2}$ inches; body $\frac{3}{4}$ inch.

General colour creamy-white, clothed with fine silvery hairs, marked with yellowish-brown. Head, thorax, legs and basal joints of antennæ yellow, clothed with hairs of same colour. Eyes black. Antennæ, except first and second joints, reddish-

brown, covered with a fine pubescence. Forewing broad, rounded, spotted along front margin with light brown, in centre towards tips ornamented with an embossed irregular rounded blotch, 4 lines in diameter, deep yellowish-brown, clothed with ochreous hairs, connected by a more ochreous-coloured transverse band crossing to hind margin where, clothed with dark brown hairs, it forms another irregular blotch, mottled with white, and a row of fine bead-like spots on the transverse band; turning upward an irregular ochreous band crosses hind portion of wing, enlarged into another irregular blotch close to sides of thorax, also mottled with grey and brown. Hindwings smaller, rounded, with a rounded dark brown blotch in centre, towards tips of wings a few small brown spots. Abdomen short, rounded, swelling out at tip, and covered with grey hairs, thickest at the extremity. The remarkable blotching of the forewings of this beautiful insect might be likened to a drop of yellow varnish that had been placed on the wing close to the thorax, allowed to run down along the hind margin, and then turned up and allowed to remain on the embossed centre.

Hab.—Tambourine Mountain, Q. (R. Illidge; 2 specimens).

I am indebted to Mr. C. French for the first specimen of this beautiful insect. But I have since received a second from Mr. Illidge, who informs me that both were taken flying to a lighted lamp in the evening; and that in the course of forty years' collecting in Southern Queensland, he had never taken it before.

EXPLANATION OF PLATE XXI.

(*Note.*—The left-hand row, counting from the top, comprises figs. 1-5: the right-hand row, also counting from the top, comprises figs. 6-9).

- Figs. 1-2.—*Psychopsis newmani*, n.sp.
 Figs. 3-5.— ,, *mimica*, Newm.
 Fig. 6.— ,, *insolens*, McL.
 Fig. 7.— ,, *illidgei*, n.sp.
 Fig. 8.— ,, *calivagus*, Walk.
 Fig. 9.— ,, *illidgei*, n.sp.